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PERTUMBUHAN DAN LAJU FOTOSINTESIS BIBIT TANAMAN JARAK PADA TINGKAT PERENDAMAN AIR DAN PEMUPUKAN NITROGEN BERBEDA

Growth and photosynthesis rate of Jatropha seedling at different dipping level and nitrogen rate

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ABSTRACT

Jatropha plant is simple to grow and can grow on almost all soil types, including relatively marginal ones, with less nutrient content. It is tolerant to drought and attack of various pest and disease. Besides, it doesn't need complicated cultivation techniques. Nevertheless, its shortage comes when lots of seedling is needed to develop a wider scale plantation. Therefore, this research objectives were to analyze rapid seed germination by dipping technique, and to enhance seed germination by nitrogen application. An experiment was conducted in a split-plot design. Main plot was dipping duration, i.e. no-dipping, 12 and 24 hours. Split-plot was nitrogen dosage, i.e. no-nitrogen, 2, 4, and 6 g N plant^{-1}. Results showed that 12-hour dipping affected faster germination. Higher plant was gained by faster-germinated plant, namely 12-hour dipping prior to planting. This dipping with 4 g N plant^{-1} tended to give higher leaf number and stem diameter of jatropha seedling.Fastest photo-synthesis rate occurred on 4 and 6 g N plant^{-1}.

Keywords: seedling dipping duration, nitrogen dosage, atrophy seedling